Amendments to the Claims

1. (canceled)

2. (previously presented) A method of forming a plurality of contact holes in a contact layer of an integrated circuit device, wherein the plurality of contact holes includes a plurality of regularly spaced contact holes having a first pitch along a first direction and a plurality of semi-isolated contact holes having a second pitch along a second direction, said method comprising:

providing a photoresist layer over the contact layer;

exposing the photoresist layer to a double-dipole illumination source which transmits light energy through a mask having a pattern corresponding to a desired contact hole pattern, the exposing resulting in the desired contact hole pattern being transferred to the photoresist layer;

wherein the double-dipole illumination source includes a first dipole aperture, said first dipole aperture being oriented and optimized for patterning the regularly spaced contact holes, and a second dipole aperture, said second dipole aperture being oriented substantially orthogonal to the first dipole aperture and optimized for patterning the plurality of semi-isolated contact holes, wherein the first dipole aperture and the second dipole aperture have at least one of (i) different sizes or (ii) different spacings; and

etching the contact layer using the patterned photoresist layer.

3. (previously presented) The method as set forth in claim 2, wherein the first dipole aperture is oriented substantially vertically and the second dipole aperture is oriented substantially horizontally.

4. (original) The method as set forth in claim 3, wherein the first dipole aperture is spaced according to: $Dipole_x = \frac{\lambda}{2NA \cdot Pitch_x}$, where $Pitch_x$ is the first pitch; and

the second dipole pair/aperture is spaced according to: $Dipole_y = \frac{\lambda}{2NA \cdot Pitch_y}$, where $Pitch_y$ is the second pitch.

5. (previously presented) The method as set forth in claim 2, wherein the first pitch is smaller than the second pitch.

6. (previously presented) The method as set forth in claim 2, wherein the regularly spaced contact holes have a pitch of about 120 nm to about 270 nm.

7. (previously presented) The method as set forth in claim 6, wherein the regularly spaced contact holes have a diameter of about 120 to about 270 nm.

8. (original) The method as set forth in claim 6, wherein the semi-isolated contact holes have a pitch of about 270 nm to about 500 nm.

9. (currently amended) A ~~The~~ method ~~as set forth in claim 2~~ of forming a plurality of contact holes in a contact layer of an integrated circuit device, wherein the plurality of contact holes includes a plurality of regularly spaced contact holes having a first pitch along a first direction and a plurality of semi-isolated contact holes having a second pitch along a second direction, said method comprising:

providing a photoresist layer over the contact layer;

exposing the photoresist layer to a double-dipole illumination source which transmits light energy through a mask having a pattern corresponding to a desired contact hole pattern, the exposing resulting in the desired contact hole pattern being

transferred to the photoresist layer, wherein the exposing step includes a single exposure;

wherein the double-dipole illumination source includes a first dipole aperture, said first dipole aperture being oriented and optimized for patterning the regularly spaced contact holes, and a second dipole aperture, said second dipole aperture being oriented substantially orthogonal to the first dipole aperture and optimized for patterning the plurality of semi-isolated contact holes, wherein the first dipole aperture and the second dipole aperture have at least one of (i) different sizes or (ii) different spacings; and

etching the contact layer using the patterned photoresist layer.

10. (previously presented) The method as set forth in claim 2, wherein the exposing step includes simultaneous illumination through the first and second dipole apertures.

11. (previously presented) The method as set forth in claim 2, wherein the mask is a binary mask.

12. (previously presented) The method as set forth in claim 2, wherein the double-dipole illumination source includes a light energy opaque substrate which defines a first pair of annular sector apertures and a second pair of annular sector apertures.

13. (previously presented) The method as set forth in claim 12, wherein the first pair of annular sector apertures and the second pair of annular sector apertures have at least one of (i) different sizes or (ii) different spacings.

14. (canceled)

15. (previously presented) The method as set forth in claim 2, wherein the plurality of contact holes includes a plurality of irregularly spaced contact holes in a periphery region, said method further comprising:

exposing the photoresist layer in the periphery region to a low sigma illumination source which provides light energy transmitted through a second mask having a pattern corresponding to a second desired contact hole pattern.

16. (original) The method as set forth in claim 15, wherein the second mask is a six percent attenuated phase shift mask.

17. – 20. (canceled)